To: McCoy, Erin[McCoy.Erin@epa.gov]; Davidson, Amie [DNR][Amie.Davidson@dnr.iowa.gov]
Cc: Pemberton, Scott[Pemberton.Scott@epa.gov]; Juett, Lynn[Juett.Lynn@epa.gov]
From: Jackson, Hylton [DNR]
Sent: Thur 11/3/2016 3:04:52 PM
Subject: RE: DICO Site

With some conditions, I plan on approving the installation of the 12" waste line (sanitary sewer). DMWW will be advised of the concerns raised in the 1992 RI and be asked to do some pre-construction soil and groundwater sampling. We will put them in touch with IDNR's Solid Waste Section so that they will have a Department contact for any solid waste issues that may arise.

HYLTON JACKSON Environmental Specialist
Iowa Department of Natural Resources

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From: McCoy, Erin [mailto:McCoy.Erin@epa.gov]
Sent: Wednesday, November 02, 2016 1:33 PM
To: Jackson, Hylton [DNR]
Cc: Pemberton, Scott; Juett, Lynn
Subject: RE: DICO Site

Hylton, looking at this, OU3 has been turned over to the state of Iowa to manage. However, if the state would like EPA to assist, we can. I would recommend reviewing the 1992 Remedial Investigation for OU3. A baseline risk assessment was performed during this RI.

The summary of the risk assessment said (page 6-19, last paragraph):

Assuming a future construction or maintenance worker is exposed to the contaminated subsurface soil, the excess cancer risks could be as much as 2 x 10"6. The exposure assumptions in the risk assessment for the adult worker scenario are RME assumptions that combine the upperbound and mid-range exposure factors. These risk results were calculated using numerous assumptions and uncertainties that may result in an underestimation or an overestimation of the actual risks. Due to the assumption that the worker would breathe all of the calculated concentration of contaminant in air (i.e., no dilution, movement, or flow), and ingestion slope factors and RfDs are used because inhalation carcinogenic slope factors and RfDs are not readily available for some chemicals, the resulting risk of 2 x 10"6 may be an overestimation. The actual risk may be orders of magnitude less.

Page 7-4 states: Based on subsurface soil boring and soil gas data, this OU exhibits concentrations of contaminants that could pose a potential health risk to future workers involved in construction or maintenance activities. Estimated excess cancer risks could be as high as 2 x 10"6 via inhalation and 3 x 10"7 via incidental soil ingestion. These estimates assume a 30 m3/day inhalation rate, 0.05 g/day soil ingestion rate, respectively, over a 30-year period for 14 days per year. Major contributors are arsenic (ingestion) and PCE (inhalation). The hazard index did not exceed one. The estimated risk and hazard index results were derived using numerous assumptions, as well as the incertainty that may result in an overestimate of the actual risks.

Hopefully this will help. If not, and IDNR would like more assistance from EPA, please let me know. Thanks!

Erin McCoy, P.G. | Remedial Project Manager

EPA Region 7 | Superfund Division | Superfund Remediation Branch

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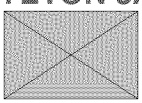
From: Jackson, Hylton [DNR] [mailto:Hylton.Jackson@dnr.iowa.gov]
Sent: Wednesday, November 02, 2016 1:13 PM
To: McCoy, Erin <McCoy.Erin@epa.gov>
Subject: FW: DICO Site

Erin ,

Received this email after I spoke to Ms Kinsey on the phone yesterday afternoon. Judging by the alignment of the proposed sewer line (on the LAST page of the second attachment) the pipe comes fairly close to the elevated cis-1,2-DCE concentrations associated with the North Plume – OU-3. I ran a concentration of 500 ug/L cis-1,2-DCE through the Johnson-Ettinger intermediate page (https://www3.epa.gov/ceampubl/learn2model/part-two/onsite/JnE_lite_forward.html) to get an approximation of what a VI number could be and then ran that value through Iowa DNR's Cumulative Risk Calculator. The risk to Site Resident seems to comfortably screen out. The project would have other state regulations to comply with. If contaminated soil is excavated during the project it would have to be treated as solid/hazardous waste, depending on contaminant and concentration, and properly managed. I am going to wait for EPA's take on this.

HYLTON JACKSON Environmental Specialist

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From: Kinsey, Katie [mailto:kinsey@dmww.com]
Sent: Tuesday, November 01, 2016 3:31 PM
To: Jackson, Hylton [DNR]
Subject: DICO Site

Hylton,

DMWW has some nitrate waste that needs to travel from the Fleur Drive Water Treatment Plant north and east across the Raccoon River to a sanitary sewer that will eventually get to the WRA. A proposed alignment for this waste line goes through the DCE plume for the DICO site located just east of the Fleur Drive Water Treatment Plant. I am curious what restrictions DMWW has when designing or installing this line. I have attached the Fifth Five Year Review Report to this email. I have extracted plume maps from this report as the second attachment. On the first page of the second attachment, I have roughly drawn in the proposed alignment of this waste line in blue.

This waste line will be 12" in diameter and will be constructed using open cut methods, except when it will be installed under the Raccoon River. I am proposing to directionally drill the waste line under the River. Through the plume, I anticipate the waste line will be approximately 5 to 10 feet deep. It may be deeper under the banks of the River. Can you please help me learn what restrictions DMWW has for this line? I am curious about what materials I can use and also, what are we required to do with the soils that are disturbed because of the open cut methods.

Thank you,

KATIE KINSEY, P.E. | Professional Engineer

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